

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

FEB 2 6 2009

AE-17J

<u>CERTIFIED MAIL</u> RETURN RECEIPT REQUESTED

Mike Tryon, President Spectro Alloys Corporation 13220 Doyle Path Rosemount, Minnesota 55068

Re: Finding of Violation at Spectro Alloys Corporation, Rosemount, Minnesota

Dear Mr. Tryon:

This is to advise you that the U. S. Environmental Protection Agency has determined that the Spectro Alloys (Spectro) facility at 13220 Doyle Path, Rosemount, Minnesota is in violation of the Clean Air Act (CAA), 42 U.S.C. § 7412 and associated pollution control requirements. A list of the requirements violated is provided below. We are today issuing to you a Finding of Violation (FOV) for these violations.

After reviewing Spectro's responses to the EPA information request sent May 21, 2008 and semi-annual excess emission reports, EPA finds Spectro to be in violation of the CAA and its implementing regulations at 40 C.F.R. § 63.1500 et seq. A list of the requirements violated is provided below. We are today issuing to you a Finding of Violation (FOV) for these violations pursuant to Sections 113(a)(3) of the CAA, 42 U.S.C. §§ 7413(a)(3).

Section 113 of the CAA gives us several enforcement options to resolve these violations, including: issuing an administrative compliance order, issuing an administrative penalty order, bringing a judicial civil action, and bringing a judicial criminal action. EPA is providing you with the opportunity to request a conference with us about the violations alleged in the FOV. A conference should be requested within 10 days following receipt of this notice and any conference should be held within 30 days following receipt of this notice. This conference will provide you a chance to present information on the identified violations, any efforts you have taken to comply, and the steps you will take to prevent future violations. Please plan for your facility's technical and management personnel to take part in these discussions. You may have an attorney represent you at this conference.

The EPA contact in this matter is Gina Harrison. You may call her at (312) 353-6956 if you wish to request a conference. EPA hopes that this FOV will encourage Spectro's compliance with the requirements of the CAA.

Sincerely,

Cheryl L. Newton

Air and Radiation Division

United States Environmental Protection Agency Region 5

IN THE MATTER OF:)
Spectro Alloys)) FINDING OF VIOLATION
Rosemount, Minnesota)
) EPA-5-09-MN-09
)
Proceedings Pursuant to) ·
the Clean Air Act,)
42 U.S.C. §§ 7401 et seq.)

FINDING OF VIOLATION

This Finding of Violation is issued pursuant to Section 113 (a)(3) of the CAA, 42 U.S.C. § 7413 (a)(3). The U.S. Environmental Protection Agency finds that Spectro Alloys (Spectro) is violating the CAA and National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Aluminum Production at 40 C.F.R. part 63, subpart RRR, as promulgated pursuant to Section 112 of the Act, 42 U.S.C. § 7412.

Applicable Regulations

- 1. Under Section 112 of the CAA, the Administrator of EPA promulgated the NESHAP for Secondary Aluminum Production at 40 C.F.R. § 63.1500 et seq.
- 2. A group 1 furnace, as that term is defined at 40 C.F.R. § 63.1503, means a furnace of any design that melts, holds, or processes aluminum that contains paint, lubricants, coatings, or other foreign materials with or without reactive fluxing, or processes clean charge with reactive fluxing.
- 3. Pursuant to the NESHAP at 40 C.F.R. § 63.1501, the owner or operator of an existing affected source must comply with the requirements of Subpart RRR by March 24, 2003; and the owner or operator of a new affected source that commences construction or reconstruction after February 11, 1999, must comply with the requirements by March 24, 2000, or upon startup, whichever is later.
- 4. The NESHAP, at 40 C.F.R. § 63.1506 (a), requires the owner or operator to operate all new and existing affected sources and control equipment according to the requirements in 40 C.F.R. § 63.1506.

- 5. The NESHAP, at 40 CFR § 63.1506 (c)(1), require each affected source to design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates as published by the American Conference of Governmental Industrial Hygienists in chapters 3 and 5 of "Industrial Ventilation: A Manual of Recommended Practice" (incorporated by reference in § 63.1502 of this subpart).
- 6. The NESHAP, at 40 C.F.R. § 63.1510 (d)(2), require each affected source to inspect each capture and collection system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in § 63.1506 (c) and record the results of each inspection.
- 7. The NESHAP, at 40 C.F.R. § 63.1510 (g) (1) and (2), requires that the owner or operator of an affected source using an afterburner to comply must install, calibrate, maintain, and operate a device to continuously monitor and record the operating temperature of the afterburner and, among other things, the temperature monitoring system must record temperature in 15- minute block averages and determine and record the average temperature for each 3-hour block period.
- 8. The NESHAP, at 40 C.F.R. § 63.1506 (g)(1)(i), requires that each affected owner or operator of a scrap dryer/delacquering kiln/decoating kiln with emissions controlled by an afterburner maintain the 3-hour block average operating temperature of each afterburner at or above the average temperature established during the performance test
- 9. The NESHAP, at 40 C.F.R. § 63.1510 (h)(1), requires each affected owner or operator of a scrap dryer/delacquering kiln/decoating kiln or a group 1 furnace using a lime-injected fabric filter install, calibrate, maintain, and operate a device to continuously monitor and record the temperature of the fabric filter inlet gases.
- 10. The NESHAP, at 40 C.F.R. § 63.1506 (g)(4) and 40 C.F.R. § 63.1506 (m)(3), requires each affected owner or operator of a scrap dryer/delacquering kiln/decoating kiln or group 1 furnace with emissions controlled by a lime-injected fabric filter to maintain the 3-hour block average inlet temperature for each fabric filter at or below the average temperature established during the performance test, plus 25°F.
- 11. The NESHAP, at 40 C.F.R. § 63.1517 (b)(5), requires that each affected owner or operator of a group 1 furnace must maintain records of 15-minute block average weights of gaseous or liquid reactive flux injection rate and calculations (including records of the identity, composition, and weight of each addition of gaseous or liquid or solid flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken.

- 12. The NESHAP, at 40 C.F.R. § 63.1506 (m)(5), requires that each affected owner or operator of a group 1 furnace with emissions controlled by a lime-injected fabric filter must maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test.
- 13. 40 C.F.R. § 63.8 (c)(4) provides that with the exception of system breakdowns, repairs, calibration checks, and zero and span adjustments required, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements.

Factual Background

- 14. At all times relevant to this notice, Spectro Alloys Corporation owns and operates a secondary aluminum production facility at 13220 Doyle Path, Rosemount, MN. Spectro Alloys Corporation uses aluminum scrap and dross in its aluminum production processes.
- 15. At the facility, Spectro owns and operates two furnaces which were constructed prior to February 11, 1999, known as Furnaces #1 and #3. These group 1 furnaces use a chlorine flux to reduce the amount of magnesium in the product. The two furnaces are vented to a common control device.
- 16. Spectro Alloys Corporation's facility is an emission source subject to the requirements of the Act, including 40 C.F.R. Part 63, Subpart RRR.
- 17. The facility is a "major source" as that term is defined at 40 C.F.R. § 63.2.
- 18. Spectro's Furnaces #1 and #3 are "group 1 furnaces" as that term is defined at 40 C.F.R. § 63.1503.
- 19. Spectro's Furnaces #1 and #3 are equipped with a "fabric filter" and use "lime-injection" as those terms are defined at 40 C.F.R. § 63.1503.
- 20. Spectro's Scrap Dryers #1 and #3 are equipped with an "afterburner" and "fabric filter," and use "lime-injection" as those terms are defined at 40 C.F.R. § 63.1503.
- 21. On September 29, 2004, EPA filed a complaint against Spectro, indicating that Spectro violated emissions standards and recordkeeping requirements. Among other things, the complaint alleged failure to monitor and record scrap dryer afterburner temperature, fabric filter inlet temperature, and chlorine injection rate of its furnaces.
- 22. On March 25, 2005, EPA executed a Consent Agreement and Final Order by signature of the Regional Administrator, Region 5. Spectro consented to this Order on April 21, 2005, by signature of the Company President.

- 23. On February 9, 2007, EPA issued a Finding of Violation to Spectro, indicating that Spectro violated emissions standards and recordkeeping requirements. Among other things, the Finding alleged failure to maintain afterburner inspection records and exceedance of dioxin/furan emission rates from Spectro's furnaces.
- 24. On September 21, 2007, EPA executed a Consent Agreement and Final Order by signature of the Regional Administrator, Region 5. Spectro consented to this Order on October 19, 2007, by signature of the Company President.
- 25. EPA conducted an inspection at the facility on May 7, 2008.
- 26. EPA sent an information request to the facility on May 21, 2008. Among other things, EPA required Spectro to demonstrate that the capture and collection systems on Furnaces #1 and #3 meet engineering standards for minimum exhaust rates, using procedures prescribed by the American Conference of Governmental Industrial Hygienists in chapters 3 and 5 of "Industrial Ventilation: A Manual of Recommended Practice."
- 27. Chapters 3 and 5 of "Industrial Ventilation: A Manual of Recommended Practice" specify that the airflow velocity through any openings in enclosure hoods, tested using EPA Method 2, should exceed or be in the range of 150-200 feet per minute (fpm) in aluminum furnaces.
- 28. The average afterburner temperature established during Spectro's January 29-31, 2008 performance test of Scrap Dryer #3 was 1499°F.
- 29. The average fabric filter inlet temperature established during Spectro's January 29-31, 2008 performance test was 379°F for Scrap Dryer #1, and 370°F for Scrap Dryer #3.
- 30. The average fabric filter inlet temperature established during Spectro's May 2, 2007 performance test was 195°F for group 1 Furnaces #1 and #3.
- 31. The average reactive chlorine flux injection rate established during Spectro's May 2, 2007 performance test of group 1 Furnaces #1 and #3 was 955 lbs/hr.
- 32. In its June 17, 2008 response to EPA, Spectro submitted results of capture and collection system testing on Furnaces 1 and 3 and airflow velocity calculations pursuant to EPA's information request. These calculations did not include calculated area from open access doors. Testing was performed only at open areas around feed conveyors, other penetrations, and access door perimeter cracks and yielded values of 329 fpm for Furnace #1, and 395 fpm for Furnace #3.
- 33. In its August 4, 2008 response to EPA, Spectro submitted results of capture and collection system testing on Furnaces #1 and #3 and airflow velocity calculations pursuant to EPA's information request. Testing was performed with all access doors open and yielded values of 36 fpm for Furnace #1, and 70 fpm for Furnace #3.

- 34. In its May 22, 2008 semi-annual excess emission and startup, shutdown, malfunction (SSM) report, Spectro reported monitoring results for several parameters including afterburner and fabric filter inlet temperatures and chlorine flux injection rates for the period September 23, 2007 to March 23, 2008. These results are included in this Finding as Table A.
- 35. In its November 18, 2008 semi-annual excess emission and SSM report, Spectro reported monitoring results for several parameters including afterburner and fabric filter inlet temperatures and chlorine flux injection rates for the period March 23, 2008 to September 23, 2008. These results are included in this Finding as Table B.

Violations of Emission Standards and Monitoring Requirements

- 36. Spectro failed to demonstrate that the capture and collection systems on Furnaces #1 and #3 were designed and installed to meet the engineering standards for minimum exhaust rates as published by the American Conference of Governmental Industrial Hygienists in chapters 3 and 5 of "Industrial Ventilation: A Manual of Recommended Practice," as required by 40 C.F.R. § 63.1506 (c).
- 37. Spectro failed to annually inspect the capture and collection systems on Furnaces #1 and #3, according to procedures outlined in chapters 3 and 5 of "Industrial Ventilation: A Manual of Recommended Practice," to ensure that each system is operating in accordance with the operating requirements stipulated in 40 C.F.R. § 63.1506 (c).
- 38. From September 23, 2007 to September 23, 2008, Spectro's Scrap Dryer #3 afterburner data recorder malfunctioned on 27 occasions causing the operating temperature of the afterburner not to be recorded, in violation of 40 C.F.R. § 63.1510 (g)(2).
- 39. From September 23, 2007 to September 23, 2008, Spectro's afterburner data recorders for Scrap Dryers #1 and #3 recorded 21 instances of temperature excursions, in violation of 40 C.F.R. § 63.1506 (g)(1)(i).
- 40. From September 23, 2007 to September 23, 2008, Spectro's fabric filter inlet temperature recorder for Scrap Dryer #3 malfunctioned on 27 occasions causing the fabric filter inlet temperature not to be recorded, in violation of 40 C.F.R. § 63.1510 (h)(1).
- 41. From September 23, 2007 to September 23, 2008, Spectro's fabric filter inlet temperature recorder for Furnaces #1 and #3 malfunctioned on 52 occasions causing the fabric filter inlet temperature not to be recorded, in violation of 40 C.F.R. § 63.1506 (g)(4) and 40 C.F.R. § 63.1506 (m)(3).
- 42. From September 23, 2007 to September 23, 2008, Spectro recorded 76 instances when the fabric filter inlet temperatures for Furnaces #1 and #3 were greater than 220°F, in violation of 40 C.F.R. § 63.1506 (g)(4) and (m)(3), and 40 C.F.R. § 63.8 (c)(4).
- 43. From September 23, 2007 to September 23, 2008, Spectro's Furnaces #1 and #3 chlorine

- injection data recorder malfunctioned on numerous occasions causing the rate of reactive flux injection not to be recorded, in violation of 40 C.F.R. § 63.1517 (b)(5).
- 44. From September 23, 2007 to September 23, 2008, Spectro recorded 68 instances when chlorine injection rates for Furnaces #1 and #3 were greater than 955 lbs/hr for 3-hour block averages, in violation of 40 C.F.R. § 63.1506 (m)(5).

Environmental Impact of Violations

45. Excess emissions of dioxins and furans increases public exposure to potentially life-threatening carcinogens. Long term exposure to dioxin has additionally been linked to birth defects, inability to maintain pregnancy, decreased fertility, reduced sperm counts, endometriosis, diabetes, learning disabilities, immune system suppression, lung problems, skin disorders, lowered testosterone levels and much more.

Date

2/26/09

Cheryl L. Newton

Air and Radiation Division

Table A: Spectro Alloys May 22, 2008 Semi Annual Excess Emission and Startup, Shutdown, Malfunction Report: Summary of Deviations and Monitor Downtime.

Table B: Spectro Alloys November 18, 2008 Semi Annual Excess Emission and Startup,

Shutdown, Malfunction Report: Summary of Deviations and Monitor Downtime.

Table A: Spectro Alloys May 22, 2008 Semi Annual Excess Emission and Startup, Shutdown, Malfunction Report.

Monitor ID	Parameter Monitored	Total Number	Total Number	Total Number of
		of Readings	of Readings	Readings Indicating
		Taken	Missed	Deviations
MR005	Dryer 3 Afterburner Temperature	1422	15	9
MR006	Dryer 1 Afterburner	1152	0	5
IVIROUG	Temperature	1132	U	3
MR007	Furnaces 1 and 3 Baghouse Inlet Temperature	1454	9	35
MR008	Dryer 3 Baghouse Inlet Temperature	1422	15	2
MR009	Dryer 1 Baghouse Inlet Temperature	1152	0	0
MR010	Furnaces 1 and 3 Chlorine Injection Rate	1349	6	12

Table B: Spectro Alloys November 18, 2008 Semi Annual Excess Emission and Startup, Shutdown, Malfunction Report.

Monitor ID	Parameter Monitored	Total Number	Total Number	Total Number of
		of Readings	of Readings	Readings Indicating
		Taken	_ Missed	Deviations
MR005	Dryer 3 Afterburner	1269	12	0
	Temperature	_		
MR006	Dryer 1 Afterburner	995	0	7
	Temperature			
MR007	Furnaces 1 and 3	1323	43	41
	Baghouse Inlet			
	Temperature			
MR008	Dryer 3 Baghouse	1269	12	0
	Inlet Temperature			
MR009	Dryer 1 Baghouse	995	0	0
·	Inlet Temperature			
, MR010	Furnaces 1 and 3	1277	59	68
	Chlorine Injection			
	Rate			

CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent a Notice and Finding of Violation, No. EPA-5-09-MN-09, by Certified Mail, Return Receipt Requested, to:

Mike Tryon, President Spectro Alloys 13220 Doyle Path Rosemount, Minnesota 55068

I also certify that I sent copies of the Notice of Violation and Finding of Violation by first class mail to:

Katie Koelfgen, Air Compliance and Enforcement Unit Supervisor Minnesota Pollution Control Agency 520 Lafayette Road St. Paul, Minnesota 55155-4194

on the <u>27</u> day of <u>Feb</u>, 2009.

Coretta Shaffer, Secretary

AECAS, MN/OH

CERTIFIED MAIL RECEIPT NUMBER: 7001 0320 0006 0186 0491